I claim:

1. A winding comprising:
- at least two poles, and
- at least one phase by which the poles are wound and which has at least two parallel paths,
- wherein at least two of the paths differ from one another in the winding of at least one of the poles,
- wherein at least one pole is wound by at least two paths,
- wherein at least one of the paths is involved in the winding of at least two poles, and
- wherein the poles are wound by the paths so as to produce an essentially symmetrical electric loading of the phase.

2. The winding according to Claim 1,
- wherein the windings of the at least one pole which are assigned to the paths, differ from one another in respect of the turns counts.

3. The winding according to Claim 2,
- wherein the sum of the turns counts of all the paths is essentially the same for each pole.

4. The winding according to Claim 2,
- wherein at least one of the paths winds at least one of the poles more lightly than the remaining poles.

5. The winding according to Claim 4, further comprising:

- 2 x p poles forming p pole pairs, and
- p paths,
- wherein the windings of the poles by the paths differ from one another in that each path is in each case more lightly involved in the winding of each pole pair than the remaining paths.

6. The winding according to Claim 4, further comprising:

- 2 x p poles, and
- 2 x p paths,
- wherein the windings of the poles by the paths differ from one another in that each path winds two adjacent poles more lightly than the remaining poles, each pole being more lightly wound by two paths than by the remaining paths and a pole adjacent to said pole being differently wound by the two paths.

7. The winding according to Claim 2,

- wherein at least one of the paths winds at least one of the poles more heavily than the remaining poles.

8. The winding according to Claim 7, further comprising:

- 2 x p poles forming p pole pairs, and
- p paths,
- wherein the windings of the poles by the paths differ from one another in that each path winds one pole pair more heavily than the remaining paths.

9. The winding according to Claim 7, further comprising:
- 2 x p poles, and
- 2 x p paths,
- wherein the windings of the poles by the paths differ from one another in that each path winds two adjacent poles more heavily than the remaining poles, each pole being more heavily wound by two paths than by the remaining paths and a pole adjacent to said pole being differently wound by the two paths.

10. The winding according to Claim 1,
- wherein the winding of the at least one pole is formed by at least two slot coils, and
- wherein the windings of the at least one pole which are assigned to the paths, differ from one another in respect of the turns counts of the slot coils of the pole.

11. The winding according to Claim 10,
- wherein the sum of the turns counts of all the paths is the same for each slot coil of the pole of which there is at least one.

12. The winding according to Claim 10,
- wherein the turns counts of the paths are the same for the pole of which there is at least one.

13. The winding according to Claim 10,
- wherein each path has at least two sub-sections,
- wherein each sub-section winds each pole with half a turn, and
- wherein each sub-section is involved to the extent of no more than half turn in the winding of the same slot coil.

14. The winding according to Claim 11, further comprising:
- two paths,
- wherein each path has three sub-sections,
- wherein each pole is formed by two slot coils, and
- wherein each slot coil is wound by two sub-sections of one of the paths and by one sub-section of another of the paths.

15. The winding according to Claim 11, further comprising:
- two paths,
- wherein each pole is formed by two slot coils, and
- wherein each path winds only one slot coil of each pole.

16. The winding according to Claim 1,
- wherein the poles are disposed evenly along a self-contained line.

17. The winding according to Claim 1,
- which is implemented as a rotating field winding.

18. The winding according to Claim 1,
- which has slots in which the paths are laid.

19. The winding according to Claim 18,
- which has a number of slots per pole per phase that is a positive integer.

20. A winding comprising:

- 2 x p poles forming p pole pairs, and
- at least one phase by which the poles are wound and which has p parallel paths,
- wherein at least two of the paths differ from one another in the winding of at least one of the poles,
- wherein at least one pole is wound by at least two paths,
- wherein at least one of the paths is involved in the winding of at least two poles,
- wherein the poles are wound by the paths so as to produce an essentially symmetrical electric loading of the phase,
- wherein the windings of the at least one pole which are assigned to the paths, differ from one another in respect of the turns counts,
- wherein at least one of the paths winds at least one of the poles more lightly than the remaining poles, and
- wherein the windings of the poles by the paths differ from one another in that each path is in each case more lightly involved in the winding of each pole pair than the remaining paths.